

REMARKS

In the Office Action dated July 23, 2010, an informality was noted in claim 16, which has been corrected.

Additionally, claims 16-29 and 32 were rejected under 35 U.S.C. §112, second paragraph as being indefinite due to further informalities noted by the Examiner. All of those informalities have been corrected, and therefore all claims of the application are submitted to be in full compliance with all provisions of 35 U.S.C. §112.

Claims 16-18, 21-24 and 28-32 were rejected under 35 U.S.C. §102(b) as being anticipated by Chang et al.

This rejection is respectfully traversed for the following reasons.

This rejection was initially made in the Office Action dated March 11, 2010. In Applicant's response to that Office Action filed on June 11, 2010, Applicant argued that the Examiner has incorrectly equated the "model" that is described in the Chang et al. reference with the "predetermined, generalized parameterized anatomical body model" of the independent claims of the present application. In Applicant's previous response, each of the independent claims of the present application was amended to further define this anatomical body model as being non-specific to any one patient.

As is explicitly stated in the Chang et al. reference at column 4, lines 66-67, the "model" that is used in accordance with the procedure disclosed in the Chang et al. reference is an abstract description of the examination subject himself or herself, namely the examination subject who is currently undergoing an examination. The "model" disclosed in the Chang et al. reference, therefore, is, and must be, patient-specific, meaning that the model that is disclosed and used in the Chang et al.

reference must necessarily describe the person currently undergoing the examination in question.

Applicant stated that this is in contrast to the predetermined, generalized anatomical body model as described in the independent claims of the present application which, as noted above, is non-specific to any one patient.

Applicant further argued that the Chang et al. reference makes use of the aforementioned “model” (i.e., the abstract description of the current examination subject) by adapting the model to a “pattern model” (template). By contrast, in the subject matter of the independent claims of the present application, the anatomical body model is adapted to the examination subject, with the use of the initially acquired magnetic resonance overview image.

Therefore, the use of the “model” described in the Chang et al. reference is completely opposite to the use of the anatomical body model in the present application. In the Chang et al. reference, the “starting point:” is a body model that describes the specific person who is undergoing an examination, and that patient-based body model is then adapted to a more generalized template. By contrast, in the subject matter of the independent claims of the present application, a generalized anatomical body model (that is non-specific to any one patient) is used as the starting point, and that non-specific anatomical body model is then individualized according to a number of MR overview images of the current examination subject. This is necessary in accordance with the present invention because the resulting individualized adaptation is then used to determine the position and orientation of subsequent magnetic resonance slice image exposures of the patient that will be obtained.

In the Final Rejection dated July 23, 2010, in response to these arguments made by the Applicant, the Examiner stated that it was not his intention to equate the “body model” in the claims of the application with the “reference template” in the Chang et al. reference, but rather to equate the body model with the abstract, schematic description of the subject. Applicant believes that Applicant correctly understood the Examiner’s previous rejection, and, as noted above, Applicant expressly argued that the Chang et al. reference does, in fact, begin with an Abstract model, but this Abstract model is nevertheless a model of the specific patient undergoing the examination, and therefore it is not and cannot be equated with the generalized parameterized anatomical body model in the claims of the present application, which, as noted above, is explicitly stated to be non-specific for any one patient. As noted above, at column 4, beginning at line 48, the aforementioned “model” in Chang et al., despite being described as being an “abstract, schematic description” is nevertheless an “abstract, schematic description” of the *subject of interest* and, moreover, is formed from overview measurements of that subject. This unambiguously teaches that the “model” in Chang et al. is specifically and directly representative of the patient undergoing the examination, and cannot be equated with the model in the claims of the present application.

In the Final Rejection, the Examiner also stated that the “generalized anatomical body model” is not claimed as a starting point in the claims of the present application. Applicant is unable to understand how the Examiner has reached that conclusion, because it is clearly stated that the individualized body model, which is *subsequently* acquired, is generated by applying overview images to the aforementioned generalized anatomical body model. Clearly, the generalized

anatomical body model has to be initially available *before* the individualized body model, because the generalized anatomical body model is used to *create* the individualized body model.

Applicant therefore respectfully submits that not only does the Chang et al. reference fail to disclose all of the elements of claims 16-18, 21-24 and 28-32, but also the Chang et al. disclosure is at many locations *directly contrary* to the subject matter of those claims. The Chang et al. reference, therefore, does not anticipate any of those claims.

Claims 19, 20 and 25-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Chang et al. in view of Itti et al. This rejection is respectfully traversed for the same reasons discussed above in connection with the Chang et al. reference. The Itti et al. reference does not provide any teachings that would substantiate modification of the Chang et al. reference so as to allegedly change the portions of that reference that are directly contrary to the subject matter of the independent claims. Consequently, none of the aforementioned dependent claims would have been obvious to a person of ordinary skill in the field of designing and operating medical imaging apparatuses, under the provisions of 35 U.S.C. §103(a), based on the teachings of Chang et al. and Itti et al.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519.

Submitted by,

/STEVEN H. NOLL/ (Reg. 28,982)
STEVEN H. NOLL
SCHIFF, HARDIN LLP
CUSTOMER NO. 26574
Patent Department
Suite 6600
233 South Wacker Drive
Chicago, Illinois 60606
Telephone: 312/258-5790
Attorneys for Applicant.

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